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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/670,705

09/27/2000

Gerhard Reichert

6878

7590 12/09/2008  
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North Canton, OH 44720

EXAMINER
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GOFF II, JOHN L

ART UNIT	PAPER NUMBER
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1791

MAIL DATE	DELIVERY MODE
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12/09/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/670,705	<b>Applicant(s)</b> REICHERT, GERHARD	
	<b>Examiner</b> John L. Goff	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 43-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 43-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/17/08 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

3. Claims 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glover et al. (U.S. Patent 5,007,217) in view of Battersby (U.S. Patent 3,759,771), Town (U.S. Patent 6,002,521), and optionally any one of Reichert et al. (U.S. Patent 4,994,309), Woodard et al. (U.S. Patent 5,308,662), or Lizardo et al. (U.S. Patent 4,335,166).

Glover discloses a method of fabricating an insulating glazing unit including providing a first glass sheet having a first perimeter (41 of Figure 2A), providing a spacer (40 of Figure 2A) frame comprising a body carrying a desiccant and two insets that define two notches, adhesively connecting the spacer frame to the first glass sheet inwardly of the first perimeter, providing a second glass sheet having a second perimeter (41 of Figure 2A), adhesively connecting (43 of Figure 2A) the second glass sheet to the spacer frame after the spacer frame has been adhesively

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connected to the first glass sheet to define an insulating chamber inward of the spacer frame and a channel outward of the spacer frame, applying a primary sealant (44 of Figure 2A) in the channel only at the notches of for example polyisobutylene (a moisture impermeable sealant as defined by applicants at page 10, lines 20-22 and page 11, lines 1-4 of the specification which functions to hermetically seal the insulating chamber) whereby at least a portion of the primary sealant contacts each of the first and second glass sheets, and subsequently applying a secondary thermosetting sealant (47 of Figure 2A) in the channel of for example silicone (a structural sealant as defined by applicants at page 11, lines 7-10) (Figures 2A and 2B and Column 6, lines 61-66 and Column 7, lines 5-6 and 25-26 and Column 8, lines 22-36 and 50-68 and Column 9, lines 1-12). Glover appears to teach the primary sealant is pre-applied to the notches of the spacer prior to adhesively connecting the spacer and the glass sheets (Column 8, lines 61-68 and Column 9, lines 1-5). Glover further teaches, at least in other embodiments, the primary sealant is applied to the spacer after adhesively connecting the spacer and the glass sheets (Column 9, lines 6-12). However, there is no specific recitation of applying the primary sealant to the notches of the spacer after the spacer is adhesively connected to the glass sheets. It is well taken in the art to apply a primary sealant to the notches of a spacer after the spacer is connected to the glass sheets as shown by Battersby and Town including after the spacer is adhesively connected to the glass sheets as shown by Town wherein Battersby teaches applying the primary sealant to both the spacer and glass sheets simultaneously at the same temperature and pressure, i.e. applying the primary sealant after connecting the spacer and the glass sheets, heats both the spacer and glass sheets and forms a strong bond considered to wet out the sealant against the glass to hermetically seal the chamber as an alternative to pre-applying the primary sealant to the

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spacer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the primary sealant in Glover to the notches of the spacer after the spacer is adhesively connected to the glass sheets as was known as shown by Battersby and Town wherein applying the heated primary sealant to the spacer after adhesively connecting the spacer and the glass sheets is a known alternative to pre-applying the sealant to the spacer and results in a strong bond between the spacer and the glass sheets.

Battersby discloses a method of making an insulating glazing unit (double glazing unit) (Column 1, lines 54-63). Battersby teaches providing a first glass sheet (10 of the Figures) having a first perimeter, providing a spacer frame comprising a body carrying a desiccant and two insets that define two notches, connecting the spacer frame to the first glass sheet inwardly of the first perimeter, providing a second glass sheet having a second perimeter (10 of the Figures), connecting the second glass sheet to the spacer frame to define an insulating chamber inward of the spacer frame and a channel outward of the spacer frame, applying a heated primary sealant (43 of the Figures) in the channel only at the notches of for example polyisobutylene (a moisture impermeable sealant as defined by applicants at page 10, lines 20-22 and page 11, lines 1-4 of the specification which functions to hermetically seal the insulating chamber) and simultaneously to both notches at the same temperature and pressure so as to wet out against the glass and hermetically seal the insulating chamber whereby at least a portion of the primary sealant contacts each of the first and second glass sheets, and subsequently applying a secondary thermosetting sealant (52 of the Figures) in the channel of for example polyurethane (a structural sealant as defined by applicants at page 11, lines 7-10) (Figures 1-7 and Column 2, lines 24-72 and Column 3, lines 1-63 and Column 4, lines 7-23). Alternatively, Battersby teaches the

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primary sealant may be pre-applied to the spacer prior to connecting the spacer and the glass sheets (Column 4, lines 16-23). However, Battersby teaches applying the primary sealant to both the spacer and glass sheets simultaneously at the same temperature and pressure, i.e. applying the primary sealant after connecting the spacer and the glass sheets, heats the spacer and glass sheets and forms a strong bond (Column 4, lines 43-47).

Town discloses a method of fabricating an insulating glazing unit including providing a first glass sheet having a first perimeter (2 of Figure 11), providing a spacer (42 of Figure 11) frame comprising a body carrying a desiccant and two insets that define two notches, adhesively connecting the spacer frame to the first glass sheet inwardly of the first perimeter, providing a second glass sheet having a second perimeter (4 of Figure 11), adhesively connecting (24 of Figure 11) the second glass sheet to the spacer frame to define an insulating chamber inward of the spacer frame and a channel outward of the spacer frame, applying a primary sealant (26 of Figure 11) in the channel of for example polyisobutylene (a moisture impermeable sealant as defined by applicants at page 10, lines 20-22 and page 11, lines 1-4 of the specification which functions to hermetically seal the insulating chamber) simultaneously to both notches at the same temperature and pressure so as to wet out against the glass and hermetically seal the insulating chamber whereby at least a portion of the primary sealant contacts each of the first and second glass sheets, and subsequently applying a secondary thermosetting sealant (28 of Figure 11) in the channel of for example silicone (a structural sealant as defined by applicants at page 11, lines 7-10) (Figure 11 and Column 4, lines 64-67 and Column 10, lines 44-55 and Column 11, lines 10-67 and Column 12, lines 1-50).

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Glover is silent as to each of the two notches of the spacer being tapered including a curved wall such that the notches are wider adjacent the channel and more narrow closer to the chamber, it being noted Glover is not limited to the notches having any particular configuration. It is well taken in the art of forming a spacer with two notches that the notches are tapered including a curved wall such that the notches are wider adjacent the channel and more narrow closer to the chamber as shown by any one of Town, Reichert, Woodard, or Lizardo (48 of Figure 11 and Column 12, lines 12-13 of Town, 30A of Figure 3 of Reichert, and 24 of Figure 1 of Woodard, and 16 of Figure 5 of Lizardo). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the two notches of the spacer taught by Glover as modified by Battersby and Town to be tapered including a curved wall such that the notches are wider adjacent the channel and more narrow closer to the chamber as shown by any one of Town, Reichert, Woodard, or Lizardo such that the primary sealant easily fills the notches.

4. Claims 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Battersby in view of Glover, Town, and optionally any one of Reichert, Woodard, or Lizardo.

Battersby is described above in full detail. Battersby is silent as to adhesively connecting the spacer and the glass sheets. Battersby teaches using clamps to attach the spacer and glass sheets prior to applying the sealants. It was known in the art to use adhesive to attach the spacer and glass sheets prior to applying the sealants as shown by Glover and Town wherein Glover specifically describes adhesively connecting the spacer to the first glass sheet and then adhesively connecting the spacer to the second glass sheet and Town specifically describes adhesive as alternative to other means used to attach the spacer and glass sheets prior to applying

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the sealants (Column 8, lines 10-14 and Column 9, lines 47-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to attach the spacer and glass sheets prior to applying the sealants as taught by Battersby using adhesive in place of the clamps as such was a known suitable alternative as shown by Glover and Town.

Battersby is silent as to each of the two notches of the spacer being tapered including a curved wall such that the notches are wider adjacent the channel and more narrow closer to the chamber, it being noted Battersby is not limited to the notches having any particular configuration. It is well taken in the art of forming a spacer with two notches that the notches are tapered including a curved wall such that the notches are wider adjacent the channel and more narrow closer to the chamber as shown by any one of Town, Reichert, Woodard, or Lizardo. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the two notches of the spacer taught by Battersby as modified by Glover and Town to be tapered including a curved wall such that the notches are wider adjacent the channel and more narrow closer to the chamber as shown by any one of Town, Reichert, Woodard, or Lizardo such that the primary sealant easily fills the notches.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 43-45 have been considered but are moot in view of the new ground(s) of rejection.

As to applicants arguments regarding Glover, there is no teaching in Glover that when using a spacer including notches the sealant must be pre-applied (as noted in previous "Response to Arguments". Further, Battersby teaches the sealant when applied to the notches is heated.



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As to applicants request for voluntary publication, it is noted the examiner does not review such requests. However, a message was sent to applications publishing notifying them of the request, and for further information publishing can be reached at 888-786-0101.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571)272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John L. Goff/  
Primary Examiner, Art Unit 1791